# Sajib Kumar Saha Joy

Ahsanullah University of Science and Technology

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## **Education**

### Ahsanullah University of Science and Technology

Dhaka, Bangladesh Fall 2015 - Spring 2019

B. Sc. in Computer Science and Engineering

**CGPA:** 3.856 on a scale of  $4.00(2^{nd}$  in Merit Position)

Natural Language Processing, Large Language Models, Computer Vision, Clinical Informatics

# **Undergraduate Thesis**

**Research Interests** 

Early Depression Detection From Social Network Using Deep Learning Techniques Supervisor: Mr. Faisal Muhammad Shah, Associate Professor, Department of CSE, AUST

# **Publications** [Google Scholar]

#### **Published**

- o Faisal M. Shah, Farzad Ahmed, Sajib Kumar Saha Joy, Sifat Ahmed, Samir Sadek, Rimon Shil and Md. Hasanul Kabir. "Early Depression Detection from Social Network Using Deep Learning **Techniques** ". In 2020 IEEE Region 10 Symposium (TENSYMP), pages 823–826, 2020.
- o Faisal Muhammad Shah, Sajib Kumar Saha Joy, Farzad Ahmed, Tonmoy Hossain, Mayeesha Humaira, Amit Saha Ami, Shimul Paul, Md Abidur Rahman Khan Jim and Sifat Ahmed. "A Comprehensive Survey of COVID-19 Detection Using Medical Images". In SN Computer Science, 2(6): 1–22. 2021.
- o Farzad Ahmed , Samiha Sultana , Md Tanzim Reza , Sajib Kumar Saha Joy and Md. Golam Rabiul Alam. "Interpretable Movie Review Analysis Using Machine Learning and Transformer Mod**els Leveraging XAI**". In 2022 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), pages 1-6, 2022.
- o Sajib Kumar Saha Joy, Dibyo Fabian Dofadar, Riyo Hayat Khan, Md. Sabbir Ahmed and Rafeed Rahman. "A Comparative Study on COVID-19 Fake News Detection Using Different Trans**former Based Models"**. In 2022 IEEE Symposium on Industrial Electronics & Applications (ISIEA), pages 1-5, 2022.
- o Sajib Kumar Saha Joy, Farzad Ahmed, Al Hasib Mahamud and Nibir Chandra Mandal. "An Empirical Study on How the Developers Discussed About Pandas Topics". In Machine Intelligence and Emerging Technologies, pages 242–255, Cham, 2023. Springer Nature Switzerland.
- o Kazi Toufique Elahi, Tasnuva Binte Rahman, Shakil Shahriar, Samir Sarker, Sajib Kumar Saha Joy and Faisal Muhammad Shah. "Explainable Multimodal Sentiment Analysis on Bengali Memes". In 26th International Conference on Computer and Information Technology (ICCIT), pages 1-6, 2023.

#### **Under Review**

- Md. Tanvir Rouf Shawon, G. M. Shahariar, Farzad Ahmed and Sajib Kumar Saha Joy. "Explainable Cost-Sensitive Deep Neural Networks for Brain Tumor Detection from Brain MRI Images considering Data Imbalance". In Multimedia Tools and Applications, Springer
- Sajib Kumar Saha Joy, Arman Hassan Mahy, Meherin Sultana, Azizah Mamun Abha, MD Piyal Ahmmed, Yue Dong, G M Shahariar "Gender Bias Mitigation for Bangla Classification Tasks". In NAACL, 2025
- Muhammad Azmain Mahtab, Md. Sarwar Hossain, Md. Masudur Rahman and Sajib Kumar Saha Joy. "An Empirical Study on Utilizing Large Language Models for Bengali Image Caption Generation". In 27th International Conference on Computer and Information Technology (ICCIT)

# **Ongoing Research Projects**

- o Adversarial Attack on Bangla Classification Tasks: An Empirical Study
- o Phylogenetic Tree Construction Using BERT-Based Model

# Experience

#### Lecturer

Department of Computer Science & Engineering

August 2021 - Present

Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Courses: Compilers, Computer Networks, Artificial intelligence Lab, Pattern Recognition Lab

#### **Lecturer** (Contractual)

Department of Computer Science & Engineering

October 2020 - September 2021

BRAC University, Dhaka, Bangladesh

Courses: Systems Analysis and Design Lab, Digital Logic Design Lab

#### **Technical Skills**

**Languages:** Python, C, C++, C#, JAVA, HTML5, PHP, XML, R JavaScript, 80x86 Assembly

Framework: CSS, WebGL, JSP

Database: MySQL

IDE: Jupyter Notebook, PyCharm, Eclipse, NetBeans, Microsoft Visual Studio Code

Operating System: Windows, Android

Deep Learning Tools: Keras, Tensorflow, Pytorch

Others: PL/SQL, LaTeX

#### Awards & Achievements

- o Dean's List of Honor (Based on B.Sc. result)
- o Certificate for completing the course "Natural Language Processing Specialization" in Coursera
- o Certificate for completing the course "AI for Medicine Specialization" in Coursera
- Certificate for completing the course "TensorFlow" in Coursera
- Certificate for completing the course "Machine Learning" in Coursera
- o Certificate for completing the course "Deep Learning Specialization" in Coursera
- o Paper presentation certificate at 2022 IEEE Symposium on Industrial Electronics & Applications
- o Paper presentation certificate at the conference on Machine Intelligence and Emerging Technologies

# **Extracurricular Activities**

- o Active member of AUST CSE Seminar Committee
- o Active member of AUST CSE Lab Devolopment Committee
- o Advisor of Cefalo CodeFiesta 2022: AUST Inter-University Programming Contest
- o Organizer of Intra-AUST Programming Contest Fall 2018
- o Organizer of AUST CSE Festival Fall 2018